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TO THE IMPLEMENTATION AND ENFORCEMENT OF THE
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APPLICATION OF LANDSAT-2 DATA TO THE IMPLEMENTATION AND ENFORCEMENT OF THE PENNSYLVANIA SURFACE MINING CONSERVATION AND RECLAMATION ACT

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FOR PERIOD MARCH 19-JUNE 19, 1975

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16. Abstract Initial LANDSAT mining environmental regulatory monitoring program efforts during the first quarterly performance period were directed toward establishment of user community contacts with the Pennsylvania Department of Environmental Resources, analysis of mining regulatory statutes for potential LANDSAT data applications, detailed study area definition and coordination of aircraft underflight data acquisition.			
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TYPE II Progress Report

For Period March 19-June 19, 1975.

Introduction to Project Objectives

The central objectives of the Pennsylvania LANDSAT investigation are:

- ° To prepare information products from analysis of LANDSAT and aircraft imagery to rapidly and effectively implement the regulatory provisions of Pennsylvania's Surface Mining Conservation and Reclamation Act.
- ° To develop and operationally implement a monitoring system, within one or more detailed study sites, which will include surface mine disturbance change detection, reclamation status monitoring and mined lands inventory updating.
- ° To provide utilitarian regulatory information products to line agencies within the Pennsylvania Department of Environmental Resources.

Problems

A combination of manpower scheduling conflicts and competing labor demands during the months of March, April and May, together with some measure of slowness in establishment of standing accounts and standing orders for LANDSAT-2 data at the EROS Data Center has limited initial

progress toward early investigation task objectives. Both of these problems have now been effectively overcome, and the rate of progress should be expected to increase during the next quarterly reporting period.

Accomplishments

Labor resources expended during the first quarterly reporting period of the investigation were directed toward pursuit and accomplishment of the following tasks:

- ° Arrangement and coordination of NASA aircraft underflight data acquisition.
- ° Initiation of LANDSAT data user contacts within the Pennsylvania Department of Environmental Resources.
- ° Initiation of an analysis of Pennsylvania mining environmental law to identify specific surface mining regulatory applications for LANDSAT data.
- ° Initiation of detailed study area selection procedures aimed at identification of a specific area(s) characterized by a variety of mineral types and surface mining methods within one or more surface mine inspection districts.
- ° Submission of aircraft underflight data orders to the EROS Data Center.
- ° Initiation of a review of all LANDSAT-2 data acquired prior to establishment of standing orders at the EROS Data Center for the purpose of identifying imagery suitable for retrospective order processing.

In addition to completion of several tasks outlined above which were begun during the first quarter, investigation efforts in the next quarterly performance period are expected to include initiation of work toward the following specific objectives:

- Identification of specific LANDSAT data users within the Pennsylvania Department of Environmental Resources; determination of preliminary LANDSAT data product formats; and outline of a data distribution plan.
- Initiation of effort to develop conventional mined lands information data bank for detailed study area.
- Initiation of LANDSAT and aircraft underflight data analysis activities upon receipt of the first shipments of data from the EROS Data Center in Sioux Falls.
- Initiation of work towards development of an initial mined lands disturbance data base for the Western Pennsylvania test area.
- Submission of retrospective CCT data orders and identification of EDP data processing programs for LANDSAT CCT data manipulative applications.

Significant Results

None.

Publications

None.

Recommendations

None.

Funds Expended

Total fund expenditures incurred through May 31, 1975: \$818.00

Data Use

<u>Type of Data</u>	<u>Value of Data Allowed</u>	<u>Value of Data Ordered</u>	<u>Value of Data Received</u>
LANDSAT	\$1,800.00	None	None
CCT	\$3,000.00	None	None
Aircraft	\$9,096.00	\$1,032.00	None

Aircraft Data

EarthSat's Flight No. 1 aircraft underflight data support request to NASA for 1:125,000 scale color infrared positive coverage of the Western Pennsylvania Bituminous Coal Region was filled by Ames Research Center on the flights and dates listed below:

Flight No. 75-018C 22 February 1975

Flight No. 75-037B 11 April 1975

The aircraft underflight data from these missions has been ordered from the EROS Data Center in Sioux Falls.